

§51.3412 Unusable material.

“Unusable Material” consists of defective portions of potatoes, and potatoes which are frozen, affected by freezing injury, soft rot, wet breakdown, insects, worms, larvae, Blackheart, Late Blight Tuber Rot, Southern Bacterial Wilt, Bacterial Ring Rot, or which are seriously damaged by internal defects.

§51.3413 Size.

(a) The minimum size, maximum size or range in size may be specified in connection with the grade in terms of diameter or weight.

(b) Diameter means the greatest dimension in terms of inches or fractions of an inch measured at right angles to the longitudinal axis, without regard to the position of the stem-end.

(c) Weight means the minimum or maximum weight measured in terms of whole ounces. When a maximum weight is specified, the potato shall not be considered as oversize until it weighs the next higher ounce.

§51.3414 Application of standards.

In the application of these standards to determine the percentages of potatoes in any lot which meet the requirements of the respective grades or size categories, tolerances do not apply. However, for lots which are graded or pre-sorted for size or quality, offered for inspection and required to meet one of the grades, the following tolerances, by weight, are provided:

(a) For defects:

(1) *U.S. No. 1 Processing*. 10 percent for potatoes which fail to meet the requirements of this grade including not more than one-half of this tolerance, or 5 percent, for serious damage by any means, including therein not more than 2 percent for potatoes which are frozen or affected by soft rot or wet breakdown.

(2) *U.S. No. 2 Processing*. 10 percent for potatoes which fail to meet the requirements of this grade including not more than one-half of this tolerance, or 5 percent, for potatoes which are seriously damaged by internal defects occurring entirely within the vascular ring, including therein not more than 2 percent for potatoes which are frozen or affected by soft rot or wet breakdown.

(b) For loose sprouts, dirt and foreign material: 2 percent.

(c) For off-size:

(1) *Undersize*. 3 percent when the minimum size specified is less than 2¼ inches in diameter or less than 5 ounces in weight; and 5 percent when the minimum size specified is 2¼ inches or more in diameter or 5 ounces or more in weight.

(2) *Oversize*. 10 percent.

§51.3415 Definitions.

Similar varietal characteristics means that the potatoes in any lot have the same general shape, color, and character of skin and color of flesh.

Fairly well shaped means that the potato is not materially pointed, dumb-bell-shaped, or otherwise deformed.²

Moderately firm means that the potato is not seriously shriveled or flabbily.²

Not seriously misshapen means that the potato is not seriously deformed and causing more than 10% waste when determining the non-peelable area directly due to shape.

Soft rot or wet breakdown means any soft, mushy or leaky condition of the tissue such as Leak, slimy soft rot, wet type Fusarium Tuber Rot, or wet breakdown following freezing injury or heat injury.

Loose sprouts, dirt and foreign material means unattached sprouts or sprouts that become detached during the grading of the sample, stems, vines, adhering dirt, loose dirt, stones, trash and other extraneous material.

Damage means any defect listed in §51.3416, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which cannot be removed without a loss of more than 5 percent of the total weight of the potato.

²USDA Visual Aid, POT-L 1 Jan 81. This publication may be examined in the Fruit and Vegetable Division, Fresh Products Branch, AMS, U.S. Department of Agriculture, South Building, Washington, DC 20250, or any field office of the Fresh Fruit and Vegetable Inspection Service. Copies of this visual aid may be purchased from the John Henry Company, P.O. Box 17099, Lansing, MI 48901 or United Fresh Fruit and Vegetable Association, N. Washington at Madison, Alexandria, VA 22314.

§51.3416

Serious Damage means any defect listed in §51.3416, or an equally objectionable variation of any of these defects, any other defect, or any combination of defects, which cannot be removed without a loss of more than 10 percent of the total weight of the potato.

External Defects are defects which can be detected externally. Cutting may be required to determine the extent of the injury.

Internal Defects are defects which cannot be detected without cutting the potato.

§51.3416 Classification of defects.

EXTERNAL DEFECTS

Defects	Maximum allowed for U.S. No. 1 processing	Maximum allowed for U.S. No. 2 processing
Air cracks	5% waste	10% waste.
Blackleg	5% waste	10% waste.
Bruises	5% waste	10% waste
Cuts	Smooth, not more than 10% of surface.	Smooth, not more than 1/3 of surface.
Enlarged lenticels, discolored or sunken.	5% waste	10% waste.
Flea Beetle	5% waste	10% waste
Folded end	5% waste	10% waste.
Fusarium tuber rot	5% waste	10% waste.
Grass, wireworm ..	5% waste	10% waste.
Greening, light	5% waste	10% waste.
Growth cracks	See Footnote No. 2.	10% waste.
Grub	5% waste	10% waste.
Ingrown sprouts	5% waste	10% waste.
Nematodes	5% waste	10% waste.
Rhizoctonia, solid or thick mounded.	Not more than 10% of surface.	Not more than 25% of surface.
Rodent, bird damage.	5% waste	10% waste.
Scab, pitted	5% waste	10% waste.
Scab, russet	25% of surface or 5% waste.	50% of surface or 10% waste.
Scab, surface	25% of surface or 5% waste.	50% of surface or 10% waste.
Scab, surface (elephant hide) ..	10% of surface or 5% waste.	25% of surface or 10% waste.
Second growth	5% waste	10% waste.
Scaling, surface cracks—when cracked, thick and has depth.	10% of surface or 5% waste.	25% of surface or 10% waste.
Sunburn	5% waste	10% waste.
Sunken discolored areas.	5% waste	10% waste.

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INTERNAL DEFECTS

Defects	Maximum allowed for U.S. No. 1 processing	Maximum allowed for U.S. No. 2 processing
Occurring outside of or not entirely confined to the vascular ring		
Internal Black Spot, Internal Discoloration, Vascular Browning, Fusarium Wilt, Net Necrosis, Other Necrosis, Stem End Browning.	5% waste	10% waste.
Occurring entirely within the vascular ring		
Hollow Heart or Hollow Heart with Discoloration.	Area affected not to exceed that of a circle 7/8 inch in diameter in a 10 ounce potato. ¹	Area affected not to exceed that of a circle 1 1/4 inches in diameter in a 10 ounce potato. ¹
Light Brown Discoloration (Brown Center).	Area affected not to exceed that of a circle 7/8 inch in diameter in a 10 ounce potato. ¹	Area affected not to exceed that of a circle 1 1/4 inches in diameter in a 10 ounce potato. ¹
Internal Brown Spot and similar discoloration (Heat Necrosis).	Not more than the equivalent of 3 scattered spots 1/8 inch in diameter in a potato 6 ounces in weight or 2 1/2 inches in diameter, or correspondingly lesser or greater number of spots in smaller or larger potatoes.	Not more than the equivalent of 6 scattered spots 1/8 inch in diameter in a potato 6 ounces in weight or 2 1/2 inches in diameter or correspondingly lesser or greater number of spots in smaller or larger potatoes.

¹ Note: Or correspondingly lesser or greater areas in smaller or larger potatoes.

§51.3417 Optional test for specific gravity.

Tests to determine specific gravity shall be made in accordance with the procedures set forth in this section.

(a) The potatoes used for such determinations shall be:

(1) Taken at random from a composite sample drawn from containers representative of the lot.

(2) A comparable sample from a bulk load or storage bin.

(3) From a portion of the divided sample initially drawn or submitted for determination of grade or contract compliance.

(4) Representative of the lot with respect to size and quality.